

# The capillary vibrations method to study the interfacial tension of eutectic gallium alloys at the interface with vacuum and electrolyte solution

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A new technique for measuring the dynamic and geometric characteristics of strongly curved interfaces has been developed and implemented. The method based on capillary vibrations of a microliter droplet "hanging" at the end of a capillary or "lying" on a substrate in a gaseous medium, vacuum or liquid. To study the capillary properties of low-melting alloys, an experimental setup with signs of patentability has been designed and manufactured. The surface tension of microliter droplets of gallium and its eutectic alloys with tin and indium in vacuum and inert medium, as well as at the interface with aqueous solutions of hydrochloric acid and sodium hydroxide, has been measured for the first time by the method based on measuring the spectrum of capillary oscillations [1].

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